Summary of the
Presentation to the Blue Ribbon Commission on America's Nuclear Future
by
Richard C. Moore, P.E.
Pronghorn Engineering
February 1, 2011

The problem of what to do with our nuclear waste is both a societal and technical problem. There are several models of siting controversial projects that perhaps provide insight into how we should go about solving these difficult issues. These include WIPP, the MX Missile, and the disposal of low–level radioactive waste. It is informative to break these problems out into the technical problems and the societal problems.

I am convinced that we are smart enough to solve the technical problems associated with nuclear waste disposal. Unfortunately, for the last two or three decades, almost all of our time and resources have been directed to burying the spent fuel in a repository. If we redirect this effort toward developing technology to deal with the spent fuel more efficiently, I am convinced that we will find better ultimate solutions.

I do, however, want to emphasize that technological advances will not, in all likely hood, eliminate the need for some disposal capability. We need that capability, for waste that is not ultimately recyclable such as the current tank wastes at Hanford.

The societal problems are perhaps not as difficult on a technical basis, but they certainly are more vexing and problematic. In addition to the need for a public education program as suggested to you by Governor Sullivan, these problems can perhaps be characterized by two simple acronyms: NIMBY and NIMTO. "Not In My Backyard" for many people and "Not In My Term of Office" for the politician. Through examination of successful siting of other controversial projects we can gain some understanding on how to address these problems. Potential solutions could include directing states with a vested interest to resolve the issue, vesting states that become part of the solution with more authority in the decision process, and separating the problem into more manageable, discreet pieces. Analyzing these potential solutions against previously successful projects helps provide direction.

The largest impediment to ultimate cleanup of defense sites is the lack of a disposal site for the high–level waste. A site developed solely to achieve this purpose, would perhaps, be more acceptable to a host state, given that there is a discreet quantity of waste that will be generated from the cleanup process. States that have a vested interest in the high-level waste cleanup may be more receptive to a limited disposal facility, since its success would also achieve success in the cleanup of a site within their state.

The Low–Level Radioactive Policy Act provides a successful model for dealing with a similar problem on a regional basis. Perhaps this model could be used to develop interim storage sites for spent nuclear fuel. Many states have been strong advocates for developing a solution to the storage of spent nuclear fuel because the current situation is problematic for them. If they are

required to work with other states within their region to find an interim storage site, their own interest in solving the problem may help overcome the societal problems we have faced with other interim storage sites.

It is imperative that states that are part of the solution have a definitive role in the approval process. Siting of the MX Missile in Wyoming and the issuance of a RCRA permit for WIPP by New Mexico are examples of how state involvement in the approval process helped gain public confidence.

In conclusion, we must move forward in resolving the problem of what to do with our spent nuclear fuel and high–level waste. Decision by indecision is not an acceptable path forward. We have the ability to solve this problem through advances in technology and innovative solutions to the societal issues that have prevented effective solutions to date.